

5.10 70th Street and Pioneers Boulevard

BEFORE

ADT: 30,625 veh/day (2002)

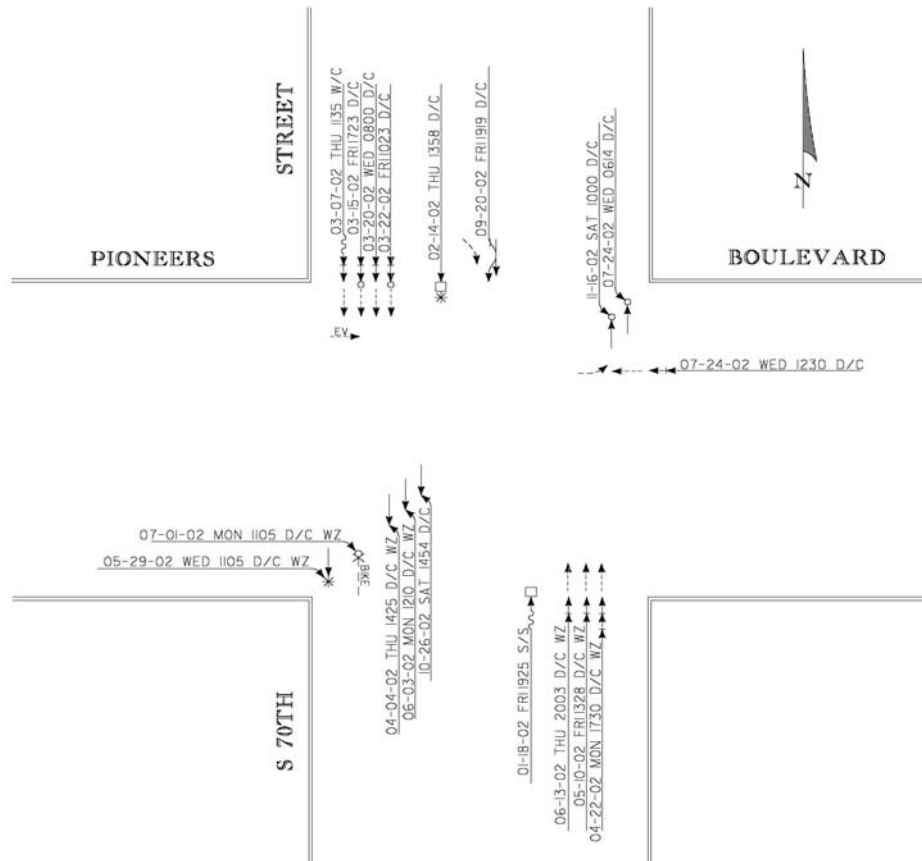
Time Period:

2002

Traffic Control: Actuated Coordinated Signal

Crash Pattern:

NB & SB Rear Ends
NB Left Turns



Total Crashes in Before Period: 18

N/A

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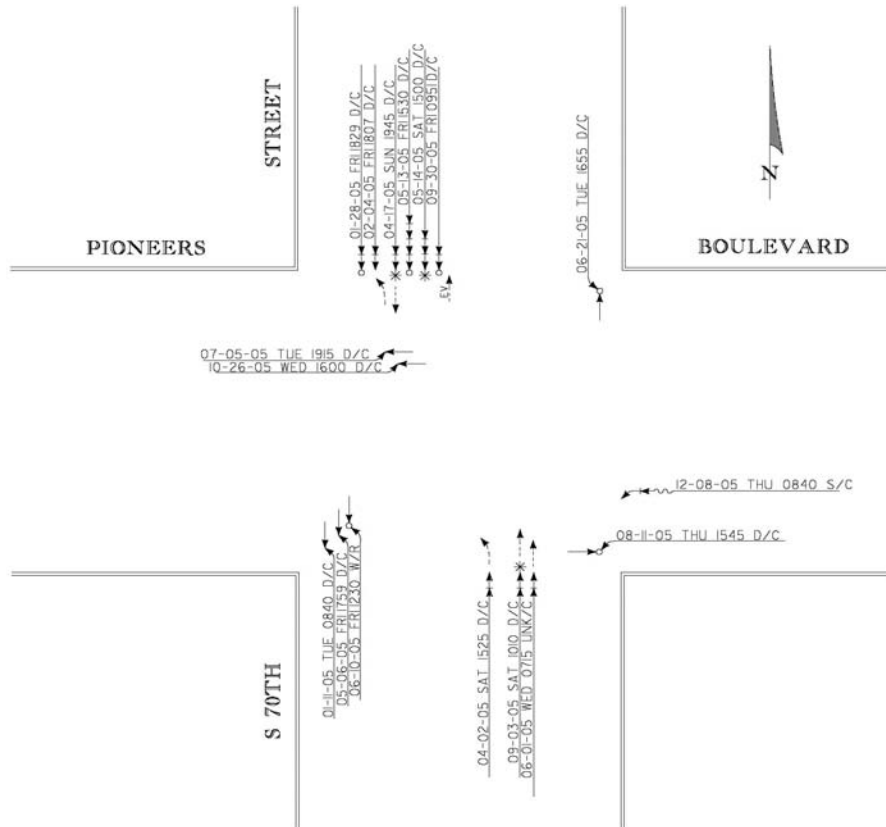
AFTER

Countermeasures: Installed Right Turn Signal Display and Left Turn Offset

Time Period: 2005

Improvement Completion Date: May 17, 2002

Speed Limits: NS Arterial- 45 mph
EW Arterial- 40 mph EB/
45 mph WB



Total Crashes in After Period: 17



70th Street and Pioneers Boulevard - Southbound Approach (After)

5.10 70th Street and Pioneers Boulevard

COMPARISON

Countermeasures:

Installed Right Turn Signal Display and Left Turn Offset

Improvement Completion Date:

May 17, 2002

	Before	After	Change
Analysis Period	2002	2005	-
Primary Crash Benefit			
Total Number of Correctable Crashes	9	10	11%
All Other Intersection Crashes	9	7	-22%
Intersection Crash Experience			
Injury + Fatal Crashes	5	6	20%
Property Damage-Only Crashes	11	8	-27%
Non-Reportable Crashes	2	3	50%
<i>Total Number of Intersection Crashes</i>	<i>18</i>	<i>17</i>	<i>-6%</i>
Total Intersection Benefit			
Crash Rate	1.61	1.52	-6%
EPDO Rate	5.56	6.23	12%
EPDO Number*	62.16	69.65	7.49

Cost of Property Damage Crash: \$ 6,200
 Total Benefit (12 months): \$ (46,438)
 Equivalent Uniform Annual Benefit (EUAB): \$ (56,617)

Total Cost of Improvements:

Equivalent Uniform Annual Cost (EUAC): \$ 205
 Initial Cost: \$ 2,000

Benefit-Cost Ratio:
$$\frac{\$ (56,617)}{\$ 205} = -276.2$$

Net Benefit (Present Worth): \$ (56,617) - \$205 = (\$56,822)

**Change NOT Statistically Significant at 95% Confidence Interval*

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